This Year's Arbor Day Tree.

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Montana Fish, Wildlife and Parks Photo

PLAINS COTTONWOOD

SENTINEL OF THE WATERWAYS

PLEASE RETURN

Along the meandering streams and rivers of the northern Great Plains the cottonwood, one of the largest of North America's broad-leaved trees, towers to a height of nearly ninety feet. In maturity its bark is rough and gray, deeply furrowed, and broadly ridged on a trunk that branches high; it occasionally grows to a diameter of six or seven feet. Young trees have a smooth trunk with thin bark.

The catkins that hold the seeds cluster like tiny grapes on a stalk; it may take half a million seeds to weight a pound. The seeds, when ripe, rely on a fluffy, cottony seed head to float them on the wind to new spots for germination, where they pile in drifts like summer snow. When receding high water leaves them on sandbars, they may, with the right conditions of moisture and warmth, sprout within a few hours. Young roots and stumps may also sprout into new trees, and a freshly-cut twig will grow into a tree if planted in moist ground.

Plains cottonwood grows at altitudes of up to 5,000 feet and weathers persistant strong winds and temperature variations from -50° to 115°F. Because it requires large amounts of water, its natural range is limited to those areas with a high water table or readily available moisture from springs and waterways.

Although the wood has low heat-producing qualities, it is helpful in clearing chimneys of creosote deposits caused by woods like spruce and pine. Other uses for the light, fibrous pulp of some varieties are the manufacture of high-grade paper and cardboard cartons. Lumber made from cottonwood is not suitable for building but can be used for pallets and some decorative paneling.

Ranchers usually leave cottonwoods standing in pastures and fields where they provide welcome shade for stock.

Wildlife, too, makes good use of this green giant; large birds like eagles, ospreys, and, occasionally, Canada geese, nest in its broad top. Woodpeckers, owls, wood ducks, and other smaller birds nest in holes in its trunk, and raccoons and squirrels find shelter there.

Beavers are fond of the bark, and their harvesting can be seen along rivers and creeks and on channel islands where they chew large sections into chunks to store near their dens for winter food.

The plains cottonwood, as its name indicates, ranges along the eastern slopes of the Rocky Mountains in a wide swath from Canada's Alberta and Saskatchewan provinces south as far as New Mexico and the Texas panhandle. The cottonwood's height makes it visible for many miles across the prairies, and it was considered a sign of water by the pioneers as they passed over the expanses of the west.

Arbor Day is for trees

and for you, too.

HOW TO MAKE ARBOR DAY A SPECIAL DAY

Write a poem for your favorite tree.

Take a nature walk to some neighborhood trees.

Visit a tree farm or a greenhouse.

Take a tree to lunch—where did your paper plates, cups, and napkins come from? Your milk carton?

Dry seeds from your lunchtime apple or orange for at least 4 hours, plant them, and keep a record of how they grow.

Make a craft project from bark, seeds, or leaves.

Write a short play about how people used to celebrate Arbor Day.

Tour a lumber mill or a carpenter's shop, and learn about different kinds of wood and their uses.

WHO THOUGHT OF ARBOR DAY?

The idea of planting a tree to mark a special occasion is not new. For many centuries trees have been part of the ceremonies celebrating the coming of spring. Among the ancient Aztecs, trees were planted to note the birth of a child. Often trees are used as memorials to honor special people, and many towns have memorial groves which commemorate soldiers who died in battle.

The importance of trees has long been appreciated by people like George P. March, once U.S. minister to Italy and Turkey, who urged the United States to begin a reforestration program as early as 1864. In 1876 Dr. Birdsey G. Northrup encouraged all the states to set out more trees, and gave prizes to school children who planted trees to mark the first hundred years of our country.

The person who promoted the first formal observation of Arbor Day in the U.S. was J. Sterling Morton, legislator and territorial governor of Nebraska, who worked untiringly for the planting of trees in his almost treeless state. He also was responsible for a resolution passed by the Nebraska legislature acclaiming April 10, 1873, as Arbor Day. In 1885 the day became a legal holiday in Nebraska, and is celebrated in that state on Morton's birthday, April 22. Now all the states observe Arbor Day, although it occurs at different times of the year, depending on the growing season.

THINGS TO DO

ART

Make a leaf print. You will need: a 6-inch square of screening; an old toothbrush; ink or poster paint; sheets of paper; leaves.

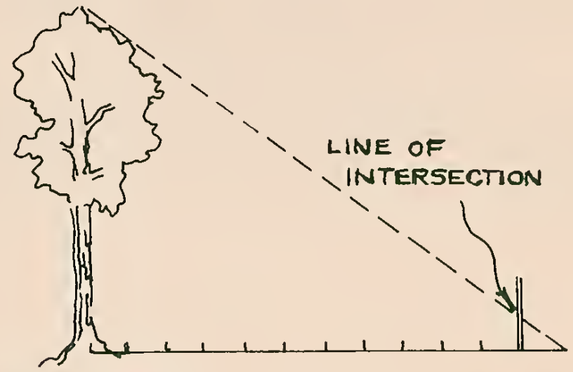
Press leaves between blotters, weighting them with bricks or heavy books. Allow about 2 days for them to dry. When they are flat and dry, lay them on sheets of paper (protect the work surface with newspapers). Dip the toothbrush in the ink or paint and brush it across the screening held 8 inches above the paper. The paint or ink will spatter; check occasionally to see if the leaf pattern is becoming clear, by carefully lifting the leaf. When the print is finished, mount it on poster paper or illustration board.

MATH

Learn how to measure a tree, using the inch-to-foot method.

Start from the trunk of the tree and walk eleven steps in a straight line. Mark this point by driving a stick into the ground; measure one more step along this line.

Now at this point, sight across the stick to the top of the tree with your eye close to the ground. Mark on the stick the point where your line of vision intersects the stick. With a yardstick, measure the distance in inches from the ground to your mark on the stick. This distance in inches will give you the tree's height in feet.



EARTH SCIENCE

Make a rubbing of a tree stump to read the tree's history.

Pick a stump that has been sawed off flat. Lay a large sheet of drawing paper on top of the stump. With a crayon laid flat on the paper, rub carefully in one direction until the texture of the tree trunk makes a clear pattern on the paper.

Are the rings you see the same distance apart?

Why are some rings close together? (This could mean a very dry season, cold temperatures during the growth season, insect damage, disease, or competition from other trees.)

Why are some rings so far apart? (This could show an excellent growth season.)

It takes about five years for a tree to become large enough to grow a ring of wood, so you should add five years to the number of rings you counted. How many years old was the tree?

IDEAS THAT WORKED

At some schools in rural Montana youngsters have planted windbreaks instead of a single tree. (The Soil Conservation Service can help students to obtain trees and shrubs in quantities for school yard plantings.)

Several schools held fund-raising events to earn money to buy trees. T-shirt sales were successful, and students in city schools collected used batteries and aluminum cans for resale and recycling.

Teachers report that students have a feeling of pride in their tree-planting projects and in the appearance of their schools when they develop the ideas themselves. Vandalism has decreased in schools where students have carried out such activities.

At many schools students wrote their own plays, poems, and programs for celebrating this special day. Arbor Day can be the focal point for projects in conservation, science and the arts, and to promote interest and concern for the world around us.

Often such projects can be part of a cleanup or beautification plan, and are the prelude to Arbor Day ceremonies.

DOES YOUR SCHOOL NEED HELP WITH A TREE PROJECT?

Ask your local representative of the Soil Conservation Service, Bureau of Land Management, U.S. Forest Service, or the Forestry Division of the Department of Natural Resources and Conservation.

> "Do not build me a monument, plant a tree."
>
> Luther Burbank

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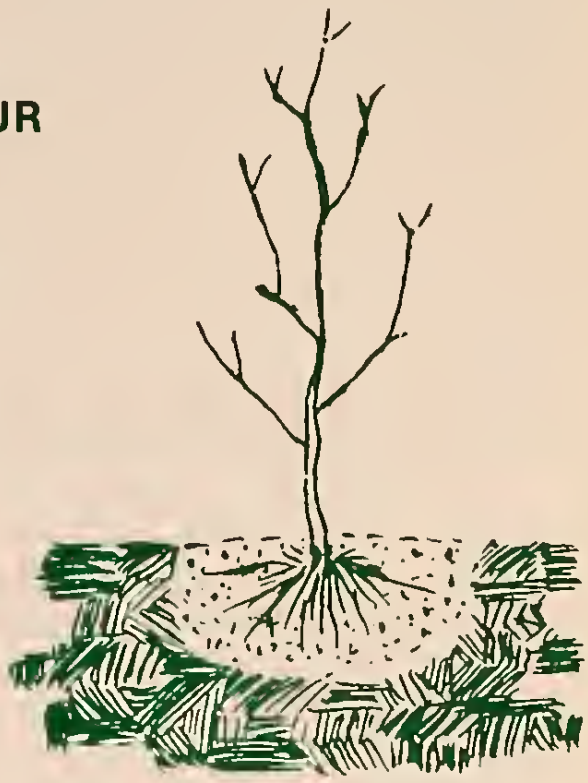
KEEP MONTANA GREEN

CONSERVATION PLEDGE

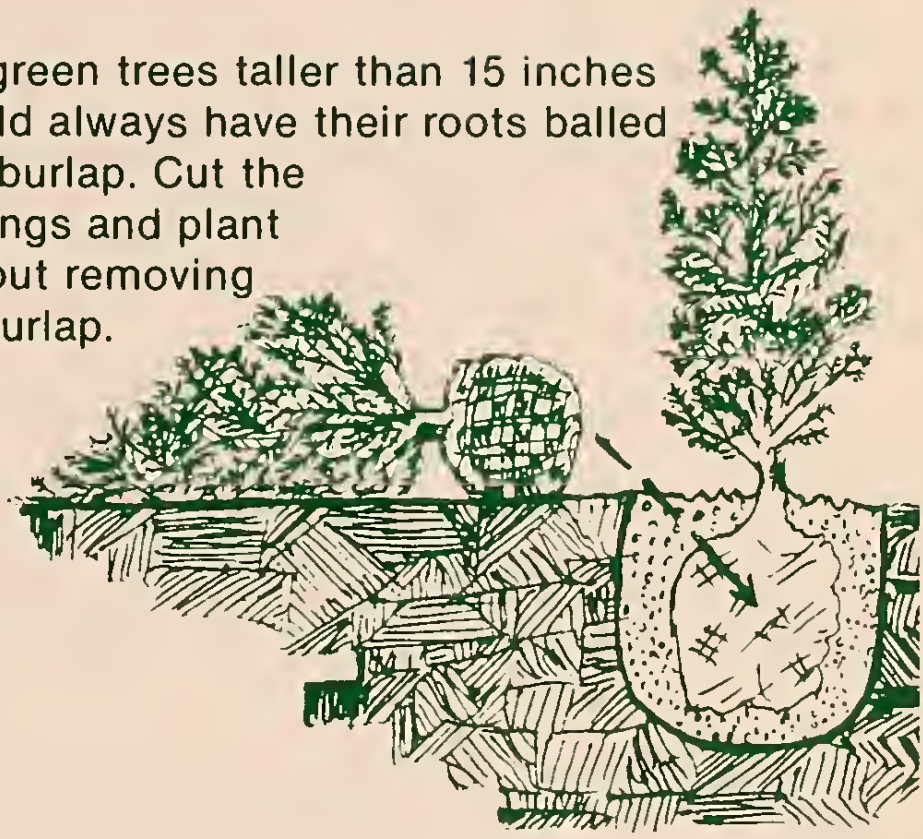
I give my pledge as an American to save and faithfully to defend from waste the natural resources of my country—its soil and minerals, its forest, waters, and wildlife.

HOW TO PLANT YOUR ARBOR DAY TREE

Dig a hole deep and wide enough to hold the roots.
Place tree two inches deeper than it was in the nursery.
Pack roots with moist soil.
Fill in around roots.
Pack firmly.



Evergreen trees taller than 15 inches should always have their roots balled with burlap. Cut the bindings and plant without removing the burlap.



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